

- 11 -

**Claims**

1. Test table for measuring lateral forces and displacements, if necessary with the simultaneous use of normal forces, particularly in nano-indenters as well as in scratch and wear testers, whereby the test table is mounted to be laterally movable and the lateral force and displacement can be determined by way of measured-value acquisition, **characterized in that** the test table (1) is attached between at least two leaf springs (3) that stand perpendicular and can be deflected laterally in the direction of the lateral (horizontal) movement of the test table (1) that is to be produced.
2. Test table according to claim 1, **characterized in that** the leaf springs (3) are attached to a frame (4) at their lower end and at their upper end.
3. Test table according to claim 1 or 2, **characterized in that** the leaf springs (3) have a bias/tensile stress applied to them.

- 12 -

4. Test table according to claim 1 or 2, **characterized in that** it is attached to the leaf springs (3) between their lower end and their upper end.
5. Test table according to claim 4, **characterized in that** the test table (1) is essentially attached at the center of the leaf springs (3).
6. Test table according to one of claims 1 to 5, **characterized in that** the test table (1) is suspended on the leaf springs (3) on a small surface as compared with the length of the leaf springs (3).
7. Test table according to one of claims 1 to 6, **characterized in that** two leaf springs (3), in each instance, stand opposite one another as a leaf spring pair.
8. Test table according to claim 7, **characterized in that** the test table (1) is disposed between several leaf spring pairs, disposed next to one another.

- 13 -

9. Test table according to one of claims 1 to 8, **characterized in that** the thickness of the leaf springs (3) is approximately greater than/equal to their lateral deflection.
10. Test table according to one of claims 1 to 9, **characterized in that** the test table (1) is connected with a damping unit.
11. Test table according to claim 10, **characterized in that** the damping unit is an oil bath (6) disposed below the test table (1), into which a damping element disposed on the test table (1) dips.
12. Test table according to one of claims 1 to 11, **characterized in that** the test table (1) has a sample holder (1.1) that is structured to be movable vertically.
13. Test table according to one of claims 1 to 12, **characterized in that** the measured-value acquisition to determine the lateral force and displacement has a shaft (9) that engages close to the sample.

- 14 -

14. Test table according to one of claims 1 to 13,  
**characterized in that** the measured-value acquisition to  
determine the lateral force and displacement takes place  
optically.